AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph beginning at page 4, line 7, with the following rewritten paragraph:

--Preferably the piezoelement is in a non-electrically activated state. No electrical field is applied. Along the stacking direction, the pretensioning device introduces indirectly via the force introduction surfaces a locally limited force or a locally limited mechanical compressive ~~tension~~ stress in a partial volume of the piezoelectric layer. Due to this mechanical compressive ~~tension~~ stress, the ferro-electrical domains statistically distributed in the partial volume of the piezoelectric layer in an unpolarized piezoelectric layer or oriented parallel to the pressure introduction in a normally polarized piezoelectric layer are switched in a preferred direction transverse to the applied mechanical compressive tension. This causes a permanent deformation or rather shortening of the piezoelectric layer in the region of the partial volume. A thickness of the piezoelectric layer is reduced in size. This results in a deformed or rather shortened piezoelement.--

Please replace the paragraph beginning at page 4, line 23, with the following rewritten paragraph:

--If the piezoelement created in this way is activated by an electrical field strength in the direction of polarity (parallel to the stacking direction), all domains both inside and outside the partial volume of the piezoelectric layer are

switched approximately parallel to the direction of polarity. The piezoactuator in the region of the partial volume of the piezoelectric layer remains under compressive ~~tension~~ stress during this switching process. However, an increased displacement is measured in the stacking direction of the piezoelement. The increased displacement is the result of an increased d_{33} value.--

Please replace the paragraph beginning at page 5, line 23, with the following rewritten paragraph:

--It is preferable for virtually complete polarization to be generated transverse to the stacking direction in this partial volume. The mechanical compressive ~~tension~~ stress causes almost complete domain switching transverse to the incoming compressive ~~tension~~ stress to be reached or exceeded in the partial volume. The compressive ~~tension~~ stress to be applied for this purpose depends on the piezoelectric material used in the piezoelectric layer. The compressive ~~tension~~ stress typically decreases in direct proportion to the decrease in the Curie temperature T_C or the coercive field strength E_C of the piezoelectric material.--

Please replace the paragraph beginning at page 5, line 33, with the following rewritten paragraph:

--In a particular embodiment, at least one of the designs chosen for the pretensioning device and/or piezoelement for generating the force introduction surface takes the form of a

spherical cup (spherical cap), frustum of a cone, cuboid, ring and/or cylinder. A prism is also possible. These designs in particular enable force introduction surfaces to be produced in both pointlike and stripe form. Pointlike means that the force introduction surface can be described by a circular or near circular surface. Such a force introduction surface, as also in the case of a ring, can be not only round but also oval or square. For example the pretensioning device has a stamp in the form of a cuboid with a square base surface area or in the form of a cylinder with a round base surface area. These base surface areas are used to transfer the mechanical compressive ~~pretensioning~~ stress to the piezoelement. The mechanical compressive ~~pretensioning~~ stress corresponding to the base surface area of the stamp is introduced via a round or square force introduction surface of the piezoelectric layer in the partial volume of the piezoelectric layer. If the cuboid has a rectangular base surface area, the force is introduced along a stripe-shaped force introduction surface into a correspondingly shaped partial volume of the piezoelectric layer. In the case of a cylinder it is also possible for the force not to be introduced via a base surface area but rather via an area of the cylindrical surface. This is then typically a line-shaped force introduction surface.--

Please replace the paragraph beginning at page 6, line 31, with the following rewritten paragraph:

--In a particular embodiment, a plurality of partial volumes are generated in the piezoelectric layer. In this case the partial volumes are preferably separate from one another. This means that switching of the polarization of the domains is generated transverse to the stacking direction via a plurality of force introduction surfaces in the piezoelectric layer. In this case preferably the same compressive ~~tension~~ stress is introduced via the force introduction surfaces. This typically means that when the force introduction surfaces are the same size, equal force is brought to bear on each of the force introduction surfaces via the pretensioning device.--

Please replace the paragraph beginning at page 7, line 7, with the following rewritten paragraph:

--In particular there are at least three force introduction surfaces, evenly distributed over the surface section of the piezoelectric layer. With three evenly distributed force introduction surfaces, it is relatively easy to introduce the same compressive ~~tension~~ stress into the partial volumes. The force is increased due to the enlargement of the total force introduction surface. Greater force must be exerted for the purpose of force introduction. However, there is greater force to draw upon.--

Please replace the paragraph beginning at page 7, line 30, with the following rewritten paragraph:

--In a particular embodiment, surface sections of the piezoelectric layer which face away from one another have virtually identical and/or differently shaped force introduction surfaces for the purpose of creating a partial volume extending in the thickness direction. Virtually identical in this case means that the force introduction surfaces are the same size to within 10%. Differently shaped force introduction surfaces exist when for instance the force introduction surface on one surface section of the piezoelectric ~~[layer]~~ layer is pointlike and the other force introduction surface on the other surface section is ring-shaped. These force introduction surfaces are arranged one over the other in such a way that the pointlike force introduction surface is in the center of the ring-shaped force introduction surface.--

Please replace the paragraph beginning at page 11, line 2, with the following rewritten paragraph:

--According to Figure 1 the pretensioning device 15 has at least one spherical cup 18 and at least one support ring 17 (cf. Figure 8, reference numbers 23 and 23'). The support ring 17 has the cross-section of a spherical cup. The support ring 17 is connected to a base 16 of the pretensioning device 15. The force 32 to be introduced into the partial volume of the piezoelectric layer 4 is transmitted to the spherical cup 18 with the aid of a spring (not shown). The support ring 17 and the spherical cup 18 are positioned opposite one another and arranged so that they are

in mechanical contact with one of the electrode layers 7 and 8 in each case. The spherical cup 18 leads to a pointlike force introduction surface 14. The diameter of the pointlike force introduction surface is about 50 µm. The support ring 17 leads to a ring-shaped force introduction surface 13 having a diameter of around 500 µm. The spherical cup 18 and the ring 17 are thus arranged in such a way that the pointlike force introduction surface 14 is arranged in the center of the ring-shaped force introduction surface 13. Applying a compressive ~~tension~~ stress causes a force 4 to be introduced into the partial volume 5 of the piezoelectric layer 4 via the force introduction surfaces 13 and 14. As a result, a switching of the polarization 27 of the domains takes place in the partial volume 5 so that the polarization is transverse to the stacking direction 10. The partial volume 5 extends in the stacking direction 10 of the piezoelement 2 along the entire thickness 6 of the piezoelectric layer 4. Virtually complete polarization takes place in the partial volume 5. Unlike the previous example, the pointlike force introduction surface 14 is generated according to Figure 2 with the aid of a frustum of a cone 20 and according to Figure 3 with the aid of a cylinder 22. The support ring 17 has according to Figure 2 the cross-section of a frustum of a cone 19 and according to Figure 3 the cross-section of a cylinder 21. In a further embodiment according to Figure 11, force introduction surfaces 24 and 24' are generated with the aid of cuboids 30 and

31 having a rectangular base surface area, and are arranged in sequence 25 or 25' (cf. Figure 9).--